

REMARKS

Claims 2, 4, 7-9, 12-14, 18-24 and 26-32 are pending in the Application. By this Amendment, claims 7, 8, 14, 17, 20 and 26 are amended and claims 15-17 and 25 are canceled. Claims 12, 13 and 27-32 are indicated as withdrawn.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance for the reasons discussed herein; (2) do not raise any new issues requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter; (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal if necessary. The amendment to claim 14 merely incorporates the features of dependent claims 15-17 into claim 14. Similarly, the amendments to claim 25 merely incorporate the features of dependent claim 25 into claim 20. Entry is thus requested.

Applicants acknowledge the indication on page 5, item 7 of the Office Action that claims 8 and 24 recite allowable subject matter.

For the following reasons, reconsideration is respectfully requested.

I. ELECTION OF SPECIES REQUIREMENT

The Office Action asserts an Election of Species Requirement that identifies two Species of the invention. Species I corresponds to Figures 1-7, and Species II corresponds to Figures 8 & 9. The Office Action then asserts that the Applicants constructively elected Species I by the presentation of the original claims. The Office Action goes on to withdraw claims 12, 13 and 27-32 from consideration as being directed to non-elected Species II. Because it is believed that the imposition of the Election Requirement is improper, Applicants respectfully traverse.

MPEP § 802.01 requires that if the species are distinct, the Examiner must still show that there would be serious burden on the Examiner to examine the claims directed to the distinct invention. In this instance, it is respectfully submitted that the subject matter of the two designated Species is sufficiently related that a thorough search for the subject matter of Species I would have encompassed a search for the subject matter of Species II. For this reason, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. See MPEP '803 in which it states that "if the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions." It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicant and duplicative examination by the U.S. Patent and Trademark Office.

In view of the foregoing, withdrawal of the Election of Species Requirement and consideration of all the pending claims are respectfully requested.

II. REPLY TO REJECTIONS

A. 35 U.S.C. § 112

On page 2, item 3 of the Office Action, claims 14-19 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. As noted above, claims 15-17 are canceled. Thus, the rejection of these claims is moot. With respect to claims 14, 18 and 19, the rejection is respectfully traversed.

With respect to the first objection, claim 14 recites that the braking member is provided on an outer circumference of a rotation shaft. Thus, the reference to an “outer circumference” is to the outer circumference of the rotation shaft, not the braking member.

Further, claim 14 recites features that are clearly shown and described in the specification and drawings of the application. Based on the specification and drawings, one of skill in the art would understand that claim 14 refers to one fixed plate and multiple pivotal plates. This interpretation is made clear in lines 5 and 6 of claim 14, which refer to “said pivotal plates” and “said fixed plate.”

In view of the foregoing, withdrawal of the rejection of claims 14, 18 and 19 is respectfully requested.

B. 35 U.S.C. § 103

1. Claims 2, 4, 9, 14, 18, 19 and 20-23

On page 3, item 5 of the Office Action, claims 2, 4, 9, 14, 18, 19 and 20-23 are rejected under 35 U.S.C. § 103(a) over U.S. Patent Publication No. 2001/0052167 to Cho (hereinafter “Cho”), in view of U.S. Patent No. 5,406,678 to Rude et al. (hereinafter “Rude”). The rejection is respectfully traversed.

Cho, in Fig. 1, discloses a fixed bracket 1, rotating brackets 2, and a shaft 3 coupled both to the fixed bracket 1 and the rotating bracket 2. As disclosed in Fig. 1 of Cho, the shaft 3 is coupled to opposing sides of the fixed bracket 1. A rotating angle limiting washer 5 is positioned between the shaft 3 and the pivotal plate 2. Various oil washers 6, a separating tension washer 7, and a fixing ring 8 are then mounted to a round bar portion on an end of the shaft 3.

To hold Cho’s hinge assembly together and apply proper torque, friction, or force to the shaft 3, the edge of the round bar of the shaft 3 is deformed by impact so that the deformed portion of the bar pushes all of the various washers 6-8 laterally (see, for example, Fig. 2, page 1, paragraph [0009] of Cho). Cho further discloses that the deformation of the shaft end caused by impact does not enable resetting of the hinge assembly once assembled, or fine tuning the amount of lateral force applied to the washers 6-8 on the round bar so that a proper torque is applied to the shaft 3. As acknowledged by the Examiner, Cho also lacks a braking member as recited in claim 14, or a braking unit as recited in claim 20.

Rude discloses a friction hinge assembly having a band 21 with a circular portion 25 that wraps around a shaft 17 (see, for example, Figs. 3 and 4 of Rude). Similar circular portions that wrap around the shaft are also shown in Figs. 6, 7, 9, 10 and 11 of Rude. In various views of Rude, the band 21 may be formed separate from the bracket 19 as shown in Fig. 3, or the band may be an integral part of the bracket 47 as shown in Fig. 11. The band is disclosed as having fewer parts, lower costs and complexity, and enabling easy assembly.

However, Rude discloses that there are several disadvantages to his bracket assembly. First, forming separate parts of the assembly from the same piece of material does not allow for the use of different types of material for each part (see, for example, col. 4, line 40-45 of Rude). Additionally, Rude discloses that the wrap around band 25 applies a different amount of restraining torque to the shaft depending on the direction of the wrap 25 of the band 21 and the direction that the shaft is rotating. The highest torque is applied when the shaft is rotated in the same direction that the band tightens. A torque resistance of roughly one-half to three quarters occurs when the shaft rotates in the opposite direction (see, for example, col. 1, lines 29-40 of Rude).

Claim 14 is directed to a hinge structure that include a braking member having a frictional face contacting with a rotation shaft and braking-tightening planes that extend from the frictional face. Claim 14 recites that the braking tightening planes have contact faces into which a leaf spring and a braking-adjustable member are inserted for adjusting braking force. Claim 14 further recites a braking housing around the braking member for maintaining a strength of the

braking member. As noted above, Cho lacks any such structure. The Rude friction hinge does not include a braking member with braking-tightening planes that extend from the frictional face, nor the recited leaf spring and braking-adjustable member for adjusting braking force. In fact, as noted above, the frictional force provided by the Rude structure cannot be adjusted. The Rude structure also lacks a separate braking housing around the braking member for maintaining a strength of the braking member.

For all the above reasons, it is respectfully submitted that claim 14 is allowable. Claims 18 and 19 depend from claim 14 and are allowable for at least the reasons, and for the additional features that they recite.

Claim 20 is also directed to a hinge structure that includes a braking unit. Claim 20 recites that the braking unit includes a braking member that includes a two tightening plates joined by a substantially cylindrical friction portion which surrounds an outer circumference of a rotation shaft and which is configured to apply friction to the rotation shaft to limit movement of the rotation shaft. Claim 20 further recites that the braking unit includes a leaf spring that is interposed between the tightening plates, and a fastener configured to adjust a spacing between the tightening plates, to thereby vary an amount of friction applied to the rotation shaft by the braking member.

As noted above, Cho lacks any structure corresponding to the braking unit recited in claim 20. The Rude friction hinge lacks a braking member with two tightening plates joined by a substantially cylindrical friction portion which surrounds an outer circumference of a rotation

shaft, and which is configured to apply friction to the rotation shaft to limit movement of the rotation shaft. Rude also lacks the leaf spring and fastener recited in claim 20.

For all the above reasons, it is respectfully submitted that claim 20 is allowable. Claims 2, 4, 9 and 21-23 depend from claim 20 and are allowable for the same reasons, and for the additional features that they recite.

In view of the foregoing, withdrawal of the rejection of claim 2, 4, 9, 14, 18, 19 and 20-23 is respectfully requested.

2. Claims 7 and 26

On page 4, item 6 of the Office Action, claims 7, 15-17, 25 and 26 are rejected under 35 U.S.C. § 103(a) over Cho, in view of Rude, and further in view of U.S. Patent No. 5,682,645 to Watabe et al. (hereinafter "Watabe"). As noted above, claims 15-17 and 25 are canceled. Thus, the rejection of these claims is moot. The rejection of the remaining claims is respectfully traversed.

As noted above, Cho and Rude fail to disclose or suggest all the features of independent claims 14 and 20. Watabe fails to cure the deficiencies of Cho and Rude.

Watabe discloses a control assembly for a hinge connection. In this assembly, a braking member 6 is surrounded by a holding member 5 made of steel, and which wraps around an elongated pivot 3 that does not turn (see Fig. 3 of Watabe). However, the Watabe assembly, like the Rude friction hinge, lacks the leaf spring recited in claim 20, which is interposed between the tightening planes of the braking member. In the Watabe structure, there is no separate leaf

spring. Accordingly, it is respectfully submitted that claim 20 is allowable over Cho, Rude and Watabe. Claims 7 and 26 are allowable for the same reasons, and for the additional features they recite. Withdrawal of the rejection of these claims is respectfully requested.

III. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Seth S. Kim**, at the telephone number listed below.

Serial No. **10/502,088**
Reply to Office Action of January 24, 2006

Docket No. **HI-0207**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
FLESHNER & KIM, LLP

A handwritten signature in black ink, appearing to read "John C. Eisenhart", is written over a horizontal line.

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